

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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Applicant <b>ECZACIBASI YAPI GERECLERI SANAYI VE TICARET A.S.</b>			
1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36. 2. This REPORT consists of a total of 7 sheets, including this cover sheet. 3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> sent to the applicant and to the International Bureau) a total of sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).			
4. This report contains indications relating to the following items: <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> Box No. I Basis of the report  <input type="checkbox"/> Box No. II Priority  <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  <input type="checkbox"/> Box No. IV Lack of unity of invention  <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement  <input type="checkbox"/> Box No. VI Certain documents cited  <input type="checkbox"/> Box No. VII Certain defects in the international application  <input type="checkbox"/> Box No. VIII Certain observations on the international application                 </div>			
Date of submission of the demand  <b>21.09.2005</b>		Date of completion of this report  <b>16.05.2006</b>	
Name and mailing address of the international preliminary examining authority:  <div style="display: flex; align-items: center;"> <div>                         European Patent Office - P.B. 5818 Patentlaan 2                          NL-2280 HV Rijswijk - Pays Bas                          Tel. +31 70 340 - 2040 Tx: 31 651 epo nl                          Fax: +31 70 340 - 3016                     </div> </div>		Authorized officer  <b>Urbahn, S</b>  Telephone No. +31 70 340-3877	



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ON PATENTABILITY**

International application No.  
PCT/TR2004/000020

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-16
	No: Claims	
Inventive step (IS)	Yes: Claims	1-16
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-16
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

**Re Item I**

**Basis of the report**

1. Claims 2-9 and 11-14 are formulated as independent claims. However, to avoid an objection of non-unity according to Rule 13 PCT and in the light of the description and the other application documents (Article 6 PCT), it seems as if they should have been dependent on claim 1.
- 1.1 This report is therefore established under the condition that these claims were worded as follows:
  - Claim 2: The hidden rectal cleaning apparatus according to claim 1, whereby the rectal cleaning pipe of the apparatus comprises...
  - Claim 3: The hidden rectal cleaning apparatus according to claim 1, whereby the upper body comprises...
  - Claim 4: The hidden rectal cleaning apparatus according to claim 1, whereby the movable stopper comprises...
  - Claim 5: The hidden rectal cleaning apparatus according to claim 1, whereby the lower body comprises a groove...
  - Claim 6: The hidden rectal cleaning apparatus according to claim 2, whereby the rectal cleaning pipe comprises a guiding rail...
  - Claim 7: The hidden rectal cleaning apparatus according to claim 5 and 6, whereby...
  - Claim 8: The hidden rectal cleaning apparatus according to claim 6, whereby the rectal cleaning pipe comprises a spring placement protrusion...
  - Claim 9: The hidden rectal cleaning apparatus according to claim 8,...
- 1.2 The same condition applies to the opinion given on claims 11-15, which should have been worded as follows to fulfill the requirements of Rule 13 and Article 6 PCT:
  - Claim 11: Bidet according to claim 10, whereby the bidet pipe comprises...
  - Claim 12: Bidet according to claim 10, whereby the bidet pipe comprises...
  - Claim 13: Bidet according to claim 12 whereby the at least one guiding rail are fittable into a groove of a lower body according to claim 5.
  - Claim 14: Bidet according to claim 10 whereby the spring placement protrusion comprises..
  - Claim 15: Bidet according to claim 14,...

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

2.1 The amended application documents are deemed to fulfill the requirements of Article 34 PCT.

**3 INDEPENDENT CLAIM 1**

3.1 Document JP - A - 61117340 is regarded as being the closest prior art to the subject-matter of claim, and shows (references applying to this document):  
a hidden rectal cleaning apparatus having rectal cleaning pipe whose outer surface being washed in order to increase the hygienic conditions, said hidden rectal ceaning apparatus comprising a hollow cylindrical lower body 34,  
a hollow cylindrical upper body 36 connected to said lower body,  
a rectal cleaning pipe 32 moving forward with the help of water pressure for the washing operation (cf. Fig. 3),  
a spring 33 pushing the rectal cleaning pipe 32 backward after the washing operation,  
a seal ring 41,  
a movable stopper 33,  
an o-ring 43,  
a gasket 42,  
whereby said lower body 34 having  
- the lower body protrusion a (cf. Fig. 3, right hand side end of body part 34), which is close to its other end, formed by a diameter reduction (inner diameter of body part 34 is reduced),  
- the lower body protrusion b (cf. Fig. 3, part of body 34 accomodating spring 33), which is closer to its other end formed by a second diameter reduction, where one end of the spring 33 leans,  
- lower body stopper, which is at its other end, formed by an additional diameter reduction (cf. Fig. 3, part of body 34 holding the sealing ring 42)  
- the lower body pipe exit (cf. Fig. 3, open end of body part 34), which is at its other end,  
- lower body o-ring operation surface located between the lower body protrusion b and lower body stopper (cf. Fig. 3, part of body 34 holding sealing ring 43),  
- the lower body water access 35 linked to lower body o-ring operation surface,  
- the front passage where the spring is located (cf. Fig. 3, spring accomodating part of body 34),

- the rear passage at the side of upper body location (cf. Fig. 3, left hand side end of body 34),
  - the mounting protrusion, located outside of the lower body, facilitating the installation of the rectal cleaning apparatus (implicitly disclosed as rectal cleaning apparatus of D1 is meant to be mounted in a toilet, cf. Fig. 5).
- 3.2 The subject-matter of claim 1 differs from this known rectal cleaning apparatus in that
- the outer surface of the rectal cleaning pipe being washed twice by water leaking from lower obdy pipe exit, while said pipe being opened by the water pressure before usage and while being closed after the usage by a spring,
  - the lower body having a plurality of lower body connection lugs on its one end, for the connection to the said upper body.
- 3.3 The subject-matter of claim 1 is therefore new (Article 33(2) PCT).
- 3.4 The problem to be solved by the present invention may be regarded as providing a higher hygienic standard (cf. description of the application, p.1, l.14-15).
- 3.5 The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:  
the rectal cleaning pipe in JP - A - 61117340 is sealed from the water helping to move it in active position by two sealing rings. Furthermore, the cleaning pipe is sealed from the washing water, arriving by another water entry into the rectal cleaning pipe. These features interact in order to keep the outer surface of the cleaning pipe dry from the arriving water. Therefore, the skilled man, confronted with the above problem, would not consider to provide a leaking passage in the rectal cleaning apparatus in order to wash the cleaning pipe during its movements from one position to the other as this would lead away from the idea of JP - A - 61117340 to completely seal the rectal cleaning pipe from incoming water.
- 4 INDPENDENT CLAIM 10
- 4.1 The same reasoning applies, mutis mutandis, to independent claim 10 directed to a bidet. This claim is also new and inventive according to Article 33(2) and (3) PCT.
- 5 DEPENDENT CLAIMS
- Claims 2-9 ands 11-16 (in the modified form specified in Item I of this communication) are

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(SEPARATE SHEET)**

International application No.

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dependent on claim 1 resp. 10 and as such also meet the requirements of the PCT with respect to novelty and inventive step.

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## HIDDEN RECTAL CLEANING APPARATUS AND BIDET

### DESCRIPTION

#### Field of the Invention

This invention is related to the hidden bidet and rectal cleaning apparatus, which are used in the closets for hygienic purposes.

#### Background of the Invention

The closets including the rectal cleaning pipes and bidets of rectal cleaning purposes are produced since longtime. In the prior art, it is known several rectal cleaning and bidet systems installed to the closet or closet cover.

The pollution of the outer surface of the rectal cleaning and bidet pipes during the utilization causes aesthetic and hygienic problems. It exists also the mobile rectal cleaning and bidet systems in the prior art, which operate according to different principles in order to overcome these problems. The mobile rectal cleaning pipes and bidets are installed to the closet or closet cover and in case of usage; they move forward within the body and become active. Therefore, the pollution of the outer surface is prevented to great extent.

In the prior art, the movement of the cleaning pipe or bidet pipe is provided by electrical engine located in the body and stimulated by a gear connected to this engine. In case of usage, first the electrical engine is switched on and then the cleaning or bidet pipe comes out of the body. At the end of the usage, the cleaning pipe or bidet enters into the body by the help of the electrical engine.

Another application within the prior art is that the movement of the cleaning pipe or bidet is completely provided by the washing water force. In the Japanese patent numbered JP 2001193130, it is used as two pieces rectal cleaning and bidet pipe which are located in one cylindrical body. That is why it is used two channels in this rectal cleaning-bidet system. There are also five different water accesses on the cylindrical body. Since the bidet and rectal cleaning are on the same channel, during the usage, it is possible that the other unused nozzle is polluted and the dirt can



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stiffen. Also, it does not exist pre-usage and post-usage washing system within this system.

### Object of the Invention

5 This invention aims to provide the cleaning of the outer surface of the hidden rectal cleaning or bidet system which serves to do hygienic washing as well as the cleaning-bidet pipe within this system during the process of opening by the washing water pressure for usage and of closing after the usage by the spring.

### Detailed Description of the Invention

10 The system subjected to the invention is indicated in the attached figures and the explanation is here below;

Figure 1. The perspective view of the rectal cleaning apparatus.

15 Figure 2. The perspective view of the rectal cleaning apparatus' section in passive mode.

Figure 3. The perspective view of the rectal cleaning apparatus' section in active mode.

Figure 4. The side view of the rectal cleaning apparatus' section in active mode.

20 Figure 5. The perspective view of the bidet's section in active mode.

Figure 6. The perspective view of the bidet and rectal cleaning apparatus which are installed to the closet in side by side.

Figure 7. The perspective view of the lower body of bidet or rectal cleaning apparatus which has grooved form.

25 Figure 8. The perspective view of the rectal cleaning pipe which has guiding rails.

Figure 9. The perspective view of the lower body of bidet or rectal cleaning apparatus which has grooved form and the rectal cleaning pipe which has guiding rails, after the installation.

30 Each of the parts numbered at the figures are indicated here below.

A. Rectal cleaning Apparatus

B. Bidet

1. Upper body water access

2. Upper body

35 3. Movable stopper

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- 4. Pipe rear stopper
- 5. Seal ring
- 6. Spring
- 7. Spring leaning surface
- 5 8. Lower body protrusion a
- 9. Lower body protrusion b
- 10. O-ring
- 11. Water access hole
- 12. Lower body stopper
- 10 13. Lower body water access
- 14. Water exit drain
- 15. Lower body
- 16. Rectal cleaning pipe
- 17. Lower body connection lug
- 15 18. Gasket
- 19. Bidet exit nozzle
- 20. Rectal Cleaning exit nozzle
- 21. Mounting protrusion
- 22. T piece
- 20 23. Feeding pipe
- 24. Rear passage
- 25. Front passage
- 26. Lower body O-ring operation surface
- 27. O-ring channel
- 25 28. Upper body water flow hose
- 29. Lower body water flow hose
- 30. Lower body pipe exit
- 31. Upper body connection lug
- 32. Gasket housing
- 30 33. Seal ring placing surface a
- 34. Seal ring placing surface b
- 35. Movable stopper long part
- 36. Movable stopper short part
- 37. Movable stopper protrusion
- 35 38. Bidet spring leaning surface

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- 39. Bidet pipe
- 40. Bidet spring
- 41. Mounting grooves
- 42. Guiding rail
- 5 43. Spring placement protrusion
- 44. Grooved Lower body
- 45. Rectal cleaning pipe with guiding rail

10 As shown in Figure 1, water arrives via three-way valve located in closet system into the mentioned rectal cleaning apparatus (A). The water comes to the three-way valve from the main water access valve. One of the spout of the mentioned three-way valve is connected to the rectal cleaning apparatus (A) and the other one to the bidet (B) (bidet (B) is shown in the figures 5-6) through different feeding drains (23). The feeding pipe (23), is connected to the upper body water access (1) and lower body water access (13) by the help of a T piece (22). The user can switch the rectal cleaning or bidet by the help of three-way valve which provides the continuous flow and functions as the directional valve. When the rectal cleaning apparatus (A) is in active mode, the bidet (B) is in passive mode or vice versa. When the main water access valve is closed the water flow to the three-way valve is prevented. The three-way valve is only used to change the direction of water flow.

25 As shown in Figure 1, the invented rectal cleaning apparatus (A), has two different water access point as being upper body water access (1) and lower body water access (13) and is composed of a upper body (2) and a lower body (15) fixed to the upper body. The upper body water access (1) which is at upper body (2) ensure the movement of the rectal cleaning apparatus (A) while the lower water access (13) which is at lower body (15) let the rectal cleaning apparatus (A) to do the cleaning function.

30 As shown in Figure 2 and figure 3, the empty cylindrical lower body (15) of the rectal cleaning apparatus (A), includes the rectal cleaning pipe (16) which operates as a washing element that can move forward within the lower body by the water pressure, the spring (6) which helps the rectal cleaning pipe (16) to return to the passive mode following the washing operation and the pieces used for the sealing purposes such as seal ring (5), movable stopper (3), o-ring (10) and gasket (18):

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As shown in Figures 2, 3 and 4, the lower empty cylindrical body (15) of the mentioned rectal cleaning apparatus (A); is composed of one or more lower body connection lug (17) at one end, the lower body protrusion a (8) resulted by the narrowing of the diameter near the other end, in addition to this, lower body protrusion b (9) resulted by a second narrowing of diameter on which one of the spring (6) ends leans and at the other end, the lower body stopper (12) resulted again by a narrowing of diameter, the lower body pipe exit (30), the lower body o-ring operation surface (26) located between the lower body protrusion b (9) and lower body stopper (12), the lower body water access (13) linked to the lower body o-ring operation surface (26), the front passage (25) where the spring (6) is located, the rear passage (24) near the upper body and the mounting protrusion (21) which is in the form of a protrusion outside the lower body (15) and which facilitate the installation of the rectal cleaning apparatus (A).

As shown in Figures 2, 3 and 4, the empty cylindrical upper body (2) of the mentioned rectal cleaning apparatus (A) with one closed one open end which is connected to the lower body (15) includes the upper body water access (1) and one or more upper body connection lugs (31) located at the open end of the upper body (2) and linked to the lower body connection lugs (17).

As shown in Figures 2, 3 and 4, the rectal cleaning pipe (16) of the mentioned rectal cleaning apparatus (A) is composed of the water exit drain (14), the protrude spring leaning surface (7) located in the middle of the rectal cleaning pipe (16) on which one of the spring's (6) end leans; the rectal cleaning exit nozzle (20) linked to the water exit drain (14) which is located at one end of the rectal cleaning pipe (16), the o-ring channel (27), the gasket housing (32), the water access hole (11) which links the water flow coming from the lower body water access (13) to the water exit drain (14) and located between the o-ring channel (27) and gasket housing (32), seal ring placing surface a (33) and seal ring placing surface b (34) and the pipe rear stopper (4).

As shown in Figures 2, 3 and 4, the o-ring channel (27) of the rectal cleaning apparatus (A) which is located within the rectal cleaning pipe (16) in which the o-ring (10) is located; is at the position to ensure the gasket (18) leaning the lower body stopper (12) when the rectal cleaning pipe (16) becomes active mode (fully open) in

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the position to be equivalent to the o-ring operation surface (26) and also when the gasket housing (32) where the gasket (18) is located within the rectal cleaning pipe (16) and the rectal cleaning pipe (16) becomes active (fully open).

5 As shown in Figures 2, 3 and 4, at one end of the rectal cleaning pipe (16) of the mentioned rectal cleaning apparatus (A) there are protrude seal ring placing surface a (33) where the seal ring (5) is located and the seal ring placing surface b (34) which fix the seal ring (5); a pipe rear stopper (4) in the form of protrusion which preserve the movable stopper (3) integrated to the seal ring placing surface b (34) as well as helping the rectal cleaning pipe (16) to stay leaned to the upper body (2) when the rectal cleaning pipe (16) becomes passive by being pushed backward through the spring (6).

15 As shown in Figures 3 and 4, the movable stopper of the mentioned rectal cleaning apparatus (A) has a long cylindrical body and a movable stopper protrusion (37) which divide this body into two part as movable stopper long part (35) and movable stopper short part (36) and which protects the water pressure at the rear passage (24) by preventing the water flow from the rear passage (24) to the water exit drain (14). The movable stopper long part (35) is placed at the pipe rear stopper (4) side of the water exit drain (14).

25 The operation method of the rectal cleaning apparatus (A) used in the closet system of which the inner structures are shown at the Figures 2, 3 and 4 in a detailed way are explained here below.

30 In order for the water coming from the upper body water access (1) to push the rectal cleaning pipe (16) it should overcome the spring (6) force. One end of the spring (6) relies on the spring leaning surface (7) which is integrated with the rectal cleaning pipe (16) and the other end on the lower body protrusion b (9). The water stuck at the rear passage (24) is prevented to pass to the front passage (25) by the seal ring (5). By the help of the sealing features of the movable stopper (3) and seal ring (5) there is no time loss at the period of opening and functioning of the rectal cleaning pipe (16) without the loss of pressure. The rectal cleaning pipe (16) pushed forward by the pressure of the water coming from the upper body water access (1) comes out of the rectal cleaning apparatus (A) hidden within the closet system. The spring

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leaning surface (7) within the rectal cleaning pipe (16) moving forward, leans to the lower body protrusion a (8) and the spring (6) is compressed between the lower body protrusion a (8) and lower body protrusion b (9). The gasket (18) which is on the rectal cleaning pipe (16) moving forward, leans against the lower body stopper (12) and prevents the water coming from the lower body water access (13) to get out from the lower body pipe exit (30). When the rectal cleaning pipe (16) becomes active (fully open), the o-ring placed in the o-ring channel (27) which is on the rectal cleaning pipe (16), prevents the water coming from lower body water access (13) to get into the front passage (25) by locating itself into the lower body o-ring operation surface (26) in a sealed way. In this way, the water coming from the lower body water access (13) reaches to the water exit drain (14) placed in the rectal cleaning pipe (16), through the water access hole (11) meeting the lower body water access (13). The water entering from the upper body water access (1) does not come to the water exit drain (14) due to the movable stopper (3). The water flow between the rear passage (24) and front passage (25) of the rectal cleaning apparatus (A), placed in its lower body (15) is directly prevented by the seal ring (5).

As shown in Figure 1, in the mentioned rectal cleaning apparatus (A), water comes to a T piece through the feeding pipe (23). The lower body water flow hose (29) linked to the lower body water access (13) and upper body water flow hose (28) linked to the upper body water access (1) are connected to each other by the mentioned T piece (22). The water passing through the upper body water flow hose (28) and upper body water access (1) push the rectal cleaning pipe (16) forward as shown in Figure 3 by filling into the rear passage (24) as shown in Figure 4. Before the rectal cleaning pipe (16) is active (fully open) the water flow in the lower body water flow hose (29) linked to the lower body water access (13) is just in the form of leakage. When the rectal cleaning pipe (16) is active (fully open), the axis of the lower body water access and the water access hole (11) which is on the rectal cleaning pipe (16) intersect. The water which does not leak out of the lower body pipe exit (30) by the help of the gasket (18) and to front passage (25) by the help of o-ring (10), enters to the water access hole (11) and water exit drain (14) by lower body water access (13) and comes out through the rectal cleaning exit nozzle (20) via the water exit drain (14). In this way, the normal water regime in other words the water flow required for the rectal cleaning and washing is provided.

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As shown in Figure 2, in the mentioned rectal cleaning apparatus (A); as soon as the water reaches to the upper body water access (1) at the normal flow, it also reaches to the lower body water access (13) as a leakage. The water access hole (11) located on the rectal cleaning pipe (16), which is not active, or fully open position, gets behind the lower body water access (13). At this position, the water leaking into the front passage (25) where the spring (6) is, reaches the water access hole (11), passes through the water exit drain (14) and gets out by leaking through the rectal cleaning exit nozzle (20) and the rectal cleaning pipe (16) by leaning since the gasket (18) does not close the lower body pipe exit (30) by leaning to the lower body stopper (12) yet. In other words, the normal regime water flow is not provided yet. The leakage on the rectal cleaning pipe (16), makes the rectal cleaning pipe (16) slippery and let it to comes out of the lower body pipe exit (30) easier and quicker. This leakage, also ensures the cleaning of the outer surface of the rectal cleaning pipe (16) before the usage.

As shown in Figures 3 and 4, in the mentioned rectal cleaning apparatus (A); the rectal cleaning pipe (16) opening fully due to the water coming from the upper water access (1) sit on the lower body o-ring operation surface (26) of the o-ring (10) and lower body stopper (12) of the gasket (18) in a sealed way and when the water access hole (11) and lower body water access (13) on the rectal cleaning pipe (16) overlap, the water coming from the lower body water access (13) gets out from the rectal cleaning exit nozzle (20) by passing through the water exit drain (14). The rectal cleaning exit nozzle (20) is mono-porose and the water gushes without spreading.

As shown in Figure 1, the closure or getting into passive mode of the mentioned rectal cleaning apparatus (A) happens by the interruption of the water pressure coming from the feeding pipe (23) by decreasing the its flow. The water of which the pressure is decreased located in the rear passage (24) comes to the T piece (22) through upper body water access (1) and upper body water flow hose (28) by being pushed backwards by the spring (6) and then arrives to the lower body water flow hose (29) and lower body water access (13). When the pressure spring (6) push the rectal cleaning pipe (16) backwards, the o-ring (10) move away from the lower body o-ring operation surface (26) and the gasket (18) move away from the lower body stopper (12). Meanwhile, water coming to the lower body water access (13), gets into

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the front passage (25) is discharged from the rectal cleaning exit nozzle (20) by passing through the water access hole (11) and water exit drain (14) and also in the meantime by during the discharge, the leaking water from the lower body pipe exit (30) ensures the cleaning of the outer surface of the rectal cleaning pipe (16) after the usage.

In Figure 5, the perspective view of the invented bidet's (B) section at active mode is indicated.

There are common mechanical features and/or parts, which constitute the rectal cleaning apparatus (A) shown in Figures 1, 2, 3 and 4 and the bidet (B) shown in Figure 5. The mentioned mechanical features and/or parts such as; upper body water access (1), upper body (2), movable stopper (3), pipe rear stopper (4), seal ring (5), lower body protrusion a (8), lower body protrusion b (9), o-ring (10), water access hole (11), lower body stopper (12), lower body water access (13), water exit drain (14), lower body (15), lower body connection lug (17), gasket (18), mounting protrusion (21), T-piece (22), feeding pipe (23), rear passage (24), front passage (25), lower body o-ring operation surface (26), o-ring channel (27), upper body water flow hose (28), lower body water flow hose (29), lower body pipe exit (30), upper body connection lug (31), gasket housing (32), seal ring placing surface a (33), seal ring placing surface b (34), movable stopper long part (35), movable stopper short part (36), movable stopper protrusion (37) are both used in the rectal cleaning apparatus (A) and bidet (B) for the same purposes.

The operation methods of the bidet (B) and the rectal cleaning apparatus (A) are identical and all the mechanical parts which constitutes the rectal cleaning apparatus (A) and bidet (B) are same except few difference. As shown in Figure 5, in the invented bidet (B), different from the rectal cleaning apparatus (A), there exists no protrude spring leaning surface (7) like in the rectal cleaning pipe (16) at the middle of the bidet pipe (39). In the bidet (B), the bidet spring (40) leans to the bidet spring leaning surface (38) which looks to the front passage (25) of the seal ring placing surface a (33). In addition to this, the lengths of the rectal cleaning pipe (16) and bidet pipe (39) that gets out are different. Since the bidet spring leaning surface (38) on the bidet pipe (39) gets behind the spring leaning surface (7) in the rectal cleaning pipe (16), the bidet pipe (39) moves forward more than the rectal cleaning



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pipe does (16). Another difference between the rectal cleaning apparatus (A) and bidet (B) is that the bidet spring (40) of bidet (B) is longer than the spring (6) in the rectal cleaning apparatus (A). Also, the difference of bidet exit nozzle (19) from the rectal cleaning exit nozzle (20) is that the bidet exit nozzle (19) has an angle and the water jets due to the little holes of the nozzle. The rectal cleaning exit nozzle (20) has a mono-porose form and the water gushes out without spreading.

During the usage, when the rectal cleaning pipe (16) and the bidet pipe (39) get fully out, the water entering from the lower body water access (13), passes through the water access hole (11) and comes out of the rectal cleaning exit nozzle (20) in rectal cleaning apparatus (A); it comes out of the bidet exit nozzle (19) in bidet. The rectal cleaning apparatus (A) or bidet (B) realize the normal washing by ensuring the normal regime water flow in other words the flow of water required for the cleaning and washing only at this position. At this position, since there is not a leakage from the lower body pipe exit (30), the outer surface of the rectal cleaning pipe (16) or bidet pipe (39) cannot be cleaned. The operation of the cleaning of the outer surface of the rectal cleaning pipe (16) or bidet pipe (39) is realized while the rectal cleaning pipe (16) or bidet pipe (39) comes out of the lower body (15) or entering in the lower body (15).

In Figure 6, the perspective view of the bidet (B) and the rectal cleaning apparatus (A) are shown as installed to the closet, side by side.

In Figure 7, the grooved lower body (44) of the bidet (B) and rectal cleaning apparatus (A) is shown. The difference of the grooved lower body (44) from the above mentioned lower body (15) is the existence of the mounting groove (41) at the at least one or preferably two side of the lower body pipe exit (30).

In Figure 8, the rectal cleaning pipe with guiding rail (45) is shown. The difference of the rectal cleaning pipe with guiding rail (45) from the above mentioned rectal cleaning pipe (16) is the existence of the guiding rail placed at least one or preferably two sides of the rectal cleaning pipe with guiding rail (45).

Also, in the rectal cleaning pipe with guiding rail (45) shown in Figure 8, there are spring leaning surface (7) and a spring placement protrusion (43) on which one or

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more springs (6) lie, located between the o-ring channel (27). The spring placement protrusion (43) is composed in the way to tolerate the diameter difference between the spring (6) and the rectal cleaning pipe with guiding rail (45). In other words, by composing passage space tolerance between the inner diameter of the spring (6) and the outer surface of the spring placement protrusion (43), the spring (6) axis and the rectal cleaning pipe with guiding rail (45) overlap. So that, by eliminating the axial misalignment of the spring (6) according to the rectal cleaning pipe with guiding rail (45), the pressure spring is prevented to move in radial direction and generating noise during the operation in the surfaces where the spring (6) sit, in the lower body protrusion b (9) and spring leaning surface (7) due to the axial misalignment therefore it operates easier. The spring placement protrusion (43), apart from the rectal cleaning pipe with guiding rail (45) can be applied to the rectal cleaning pipe (16) alternatively. The rectal cleaning pipe with guiding rail (45) can be composed without the spring placement protrusion (43) as shown in Figure 8.

In Figure 9, it is seen the position of the grooved lower body (44) and the rectal cleaning pipe with guiding rail (45) following the installation. The guiding rails (42) are placed in the mounting groove (41). The mounting grooves (41) are positioned better with the help of guiding rails (42) during the movement of the rectal cleaning pipe with guiding rail (45). In Figure 7-9, the grooved lower body (44) and the rectal cleaning pipe with guiding rail (45) are the mechanical parts developed as an alternative to the lower body (15) and the rectal cleaning pipe (16) respectively. It is possible to compose an alternative rectal cleaning apparatus by using the grooved lower body (44) and the rectal cleaning pipe with guiding rail (45) without any modification in the rectal cleaning apparatus (A).

Also, like in the rectal cleaning pipe with guiding rail (45), it is possible to compose an alternative bidet pipe by using guiding rail (42) at one or preferably two side of the bidet pipe (39). It is possible to develop an alternative bidet (B) by using the grooved lower body (44) and the mentioned alternative bidet pipe where the guiding rails (42) rest in the mounting grooves (41) without any modification in the bidet (B).

The spring placement protrusion (43) can also be used in the bidet (B). The spring placement protrusion (43) is composed on the bidet pipe (39) or bidet pipe with guiding rail between the bidet spring leaning surface (38) and o-ring channel (27).

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Also, as an alternative to the movable stopper (3) used in the rectal cleaning apparatus (A) and bidet (B); by plugging completely the place where the movable stopper (3) rests at pipe rear stopper (4) side of the water exit drain (14) in the rectal cleaning pipe (16) and bidet pipe (39) or by producing closed, it is possible to provide the sealing without using the movable stopper (3) and the alternative rectal cleaning pipe (16) and bidet pipe (39) can be produced.

The preferred rectal cleaning apparatus (A) and bidet (B) mentioned here above are not restrictive to the extent of protection of the invention. The modifications on this preferred rectal cleaning apparatus (A) and bidet (B) which will be realized in direction of the explanations of the invention should be evaluated within the extent of protection of the invention.

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**Amended Claims of the Application PCT/TR2004/000020**

1. A hidden rectal cleaning apparatus (A) having rectal cleaning pipe (16) whose outer surface being washed twice by water leaking from lower body pipe exit (30), while said pipe (16) being opened by the water pressure before usage and while being closed after the usage by a spring (6), in order to increase the hygienic conditions,

said hidden rectal cleaning apparatus (A) comprising

- a hollow cylindrical lower body (15),
- a hollow cylindrical upper body (2) connected to said lower body (15),
- a rectal cleaning pipe (16) moving forward with the help of water pressure for the washing operation,
- a spring (6) pushing the rectal cleaning pipe (16) backward after the washing operation,
- a seal ring (5),
- a movable stopper (3),
- an o-ring (10),
- a gasket (18),

characterized in that;

said lower body (15) having,

- plurality of lower body connection lugs (17), on its one end, for the connection to the said upper body (2),
- the lower body protrusion a (8), which is close to its other end, formed by a diameter reduction,
- the lower body protrusion b (9), which is closer to its other end, formed by a second diameter reduction, where one end of the spring (6) leans
- lower body stopper (12), which is at its other end, formed by an additional diameter reduction,
- the lower body pipe exit (30), which is at its other end,
- lower body o-ring operation surface (26) located between the lower body protrusion b (9) and lower body stopper (12).

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- the lower body water access (13) linked to lower body o-ring operation surface (28),
- the front passage (25) where the spring (6) is located,
- the rear passage (24) at the side of upper body (2) location,
- the mounting protrusion (21), located outside of the lower body (15), facilitating the installation of the rectal cleaning apparatus (A).

2. The rectal cleaning pipe (16) of a hidden rectal cleaning apparatus (A), according to claim 1, comprising

- the water exit drain (14) passing throughout the said pipe (16),
- spring leaning surface (7), in the form of a protrusion located in the middle of the said pipe (16), where one end of the spring (6) leans,
- plurality of the rectal cleaning exit nozzle (20), linked to the water exit drain (14), which is located at the tip of the rectal cleaning pipe (16),
- an o-ring channel (27) where the o-ring (10) is located and said o-ring channel (27) being placed such that o-ring (10) fits the lower body o-ring operation surface (26) on the lower body (15) in order to prevent water leakage from lower body water access (13) to the front hole (25) of the lower body (15) when the pipe (16) is fully opened,
- the gasket housing (32) where the gasket (18) located and said gasket housing (32) being placed such that the gasket (18) leans to lower body stopper (12) on the lower body (15) in order to prevent water leakage from lower body water access (13) to the lower body pipe exit (30) when the pipe (16) is fully opened,
- the water access hole (11) which links the water flow coming from the lower body water access (13) to the water exit drain (14) and located between the o-ring channel (27) and gasket housing (32),
- seal ring placing surface a (33) and seal ring placing surface b (34) together which are holding the seal ring (5) preventing the water leakage from rear passage (24) to front passage (25),

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- pipe rear stopper (4) being integrated with the seal ring placing surface b (34); both housing and protecting the movable stopper (3) and at the same time providing the rectal cleaning pipe (16) stay leaned against the upper body (2) when the rectal cleaning pipe (16) gets to the closed position by pushed backward by the spring (6),

3. An upper body (2), according to claim 1, in the form of a hollow cylindrical body whose one end is closed and the other end is open, having upper body water access (1); is characterized in that said body (2) being connected to the lower body connection lugs (17) in lower body (15) by the plurality of upper body connection lugs (31) located near to its open end.

4. A movable stopper (3), according to claim 1, characterized by having a long cylindrical body; a movable stopper protrude (37) separating said cylindrical body as movable stopper long part (35) and movable stopper short part (36); and maintaining the water pressure at the rear passage (24) by preventing the water flow from the rear passage (24) to the water exit drain (14) by the placement of movable stopper long part (35) in the pipe rear stopper (4) side of the water exit drain (14).

5. A grooved lower body (44), is characterized in that at least one mounting groove (41) being provided on the edge of the lower body pipe exit (30) of lower body (15) according to claim 1.

6. A rectal cleaning pipe with guiding rail (45), is characterized in that at least one guiding rail (42) being provided on the rectal cleaning pipe (16) according to claim 2.

7. A grooved lower body (44) according to claim 5 and the rectal cleaning pipe with guiding rail (45) according to claim 6, are characterized in that the guiding rails (42) being fit into the mounting grooves (41).

8. The spring placement protrusion (43) in the rectal cleaning pipe with guiding rail (45) according to claim 6, is characterized in that spring (6) being placed on it which

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is in between the spring leaning surface (7) and o-ring channel (27); and being in the form of a plurality of protrusions.

9. The spring placement protrusion (43) according to claim 8, characterized by being able to be used on the rectal cleaning pipe (16).

10. A bidet (B) having bidet pipe (39) whose outer surface being washed twice by water leaking from lower body pipe exit (30), while said pipe (39) being opened by the water pressure before usage and while being closed after the usage by a bidet spring (40), in order to increase the hygienic conditions,

said bidet (B) comprising

- a hollow cylindrical lower body (15),
- a hollow cylindrical upper body (2) connected to said lower body (15),
- a bidet pipe (39) moving forward with the help of water pressure for the washing operation,
- a bidet spring (40) pushing the bidet pipe (39) backward after the washing operation,
- a seal ring (5),
- a movable stopper (3),
- an o-ring (10),
- a gasket (18),

characterized in that;

said lower body (15) having,

- plurality of lower body connection lugs (17), on its one end, for the connection to the said upper body (2),
- the lower body protrusion a (8), which is close to its other end, formed by a diameter reduction,
- the lower body protrusion b (9), which is closer to its other end, formed by a second diameter reduction, where one end of the bidet spring (40) leans
- lower body stopper (12), which is at its other end, formed by an additional diameter reduction,
- the lower body pipe exit (30), which is at its other end,

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- lower body o-ring operation surface (26) located between the lower body protrusion b (9) and lower body stopper (12),
- the lower body water access (13) linked to lower body o-ring operation surface (26),
- the front passage (25) where the bidet spring (40) is located,
- the rear passage (24) at the side of upper body (2) location,
- the mounting protrusion (21), located outside of the lower body (15), facilitating the installation of the bidet (B).

11. The bidet pipe (39) of a bidet (B), according to claim 10, comprising

- the water exit drain (14) passing throughout the said pipe (39),
- bidet spring leaning surface (38), which is the surface of the seal ring placing surface a (33) looking to the front passage (25), where one end of the bidet spring (40) leans,
- plurality of the bidet exit nozzle (19), linked to the water exit drain (14), which is located at the tip of the bidet pipe (39),
- an o-ring channel (27) where the o-ring (10) is located and said o-ring channel (27) being placed such that o-ring (10) fits the lower body o-ring operation surface (26) on the lower body (15) in order to prevent water leakage from lower body water access (13) to the front hole (25) of the lower body (15) when the bidet pipe (39) is fully opened,
- the gasket housing (32) where the gasket (18) located and said gasket housing (32) being placed such that the gasket (18) leans to lower body stopper (12) on the lower body (15) in order to prevent water leakage from lower body water access (13) to the lower body pipe exit (30) when the bidet pipe (39) is fully opened,
- the water access hole (11) which links the water flow coming from the lower body water access (13) to the water exit drain (14) and located between the o-ring channel (27) and gasket housing (32),
- seal ring placing surface a (33) and seal ring placing surface b (34) together which are holding the seal ring (5) preventing the water leakage from rear passage (24) to front passage (25),
- pipe rear stopper (4) being integrated with the seal ring placing surface b (34); both housing and protecting the movable stopper



